



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Dolan, et al. Group Art Unit: 2623
Serial No.: 09/280,421 Examiner: Brown, Rueben M.
Filed: March 29, 1999 Customer No.: 55648
Title: INFORMATION ENHANCED AUDIO VIDEO ENCODING SYSTEM

APPELLANT'S BRIEF

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February 1, 2007

Mail Stop APPEAL BRIEF-PATENTS
Commissioner for Patents
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Dear Sir:

BACKGROUND

This brief is in furtherance of the Notice of Appeal, filed in this case on November 3, 2006.

The fees required under 37. C.F.R. § 41.20(b)(2), and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief comprises these subjects under the headings, and in the order, set forth below:

- I. Real Party in Interest
- II. Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments
- V. Summary of Claimed Subject Matter
- VI. Grounds for Rejection to be Reviewed on Appeal
- VII. Argument
- VIII. Conclusion
- IX. Claims Appendix
- X. Evidence Appendix
- XI. Related Proceedings Appendix

The final page of this brief bears the practitioner's signature.

REAL PARTY IN INTEREST

The real party in interest in this appeal is Sharp Laboratories of America, Inc., assignee of the captioned application.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN THE APPLICATION

There are 29 claims currently pending in the application.

B. STATUS OF ALL CLAIMS

Claims canceled: 9

Claims withdrawn: 31-117

Claims pending: 1-8, 10-30

Claims allowed: None

Claims objected to: None

Claims rejected: 1-8, 10-30.

C. CLAIMS ON APPEAL

Claims 1-8 and 10-30 are on appeal.

A copy of the claims on appeal is set forth in the Claims Appendix to this Brief.

STATUS OF AMENDMENTS

No amendment was filed after final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

The claimed subject matter is generally directed to a method of associating additional information with a video that includes a plurality of frames. Specifically, in a first embodiment exemplified by independent claim 1, a claimed method may comprise the steps of (a) identifying at least one of the frames representative of a picture composed of a plurality of pixels (*See* FIG. 1 and Specification at p. 5 line 25 to p. 6 line 11); (b) providing a descriptive stream separate from

the video (*See, e.g.* Specification at p. 6 lines 5 line 25 to p. 6 line 1); (c) including the additional information in said descriptive stream related to the at least one of said frames (*See, e.g.* Specification at p. 6 lines 6-11); (d) providing the video for displaying on a display (*See* FIG. 3 reference numeral 84); and (e) selectively providing said additional information to a viewer approximately the time of said providing said video where said additional information is an object depicted by said picture by said pixels (*See, e.g.* Specification at p. 26 line 4 to p. 27 line 22); wherein (f) the additional information includes executable computer program code. (*See, e.g.* Specification at p. 30 lines 11-13).

In a second embodiment, as exemplified by independent claim 21, a video system may comprise: (a) an encoder that includes additional information within a video stream including a video including a plurality of frames representative of a picture composed of a plurality of pixels, (*See, e.g.* Specification at p. 13 lines 5-21) where the additional information is related to at least one of the frames (*See, e.g.* Specification at p. 6 lines 6-11); (b) a receiver that receives the video and the additional information (*See* Specification at p. 13 lines 18-21), and the receiver decodes the video in the same manner independently of whether the additional information is provided (*See* Specification at p. 13 line 22 to p. 14 line 16); (c) a display for displaying the video (*See* FIG. 3, reference numeral 84); (d) a trigger mechanism for selectively presenting the additional information to a viewer at approximately the time of presenting the frames to the viewer where the additional information is an object depicted by the picture by the pixels (*See, e.g.* Specification at p. 26 line 4 to p. 27 line 22); wherein (e) the additional information includes executable computer program code (*See, e.g.* Specification at p. 30 lines 11-13).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection presented for review are: (1) whether claims 1-8, 10-12, and 15-30 are unpatentable under 35 U.S.C. §102(b) as being anticipated over Wistendahl et al, U.S. Patent No. 5,708, 845 (hereinafter Wistendahl); and (2) whether claims 13 and 14 are unpatentable under 35 U.S.C. §103(a) in view of Wistendahl.

ARGUMENT

REJECTION UNDER 35 U.S.C. §102(b) OVER WISTENDAHL

The Examiner rejected claims 1-8, 10-12 and 15-30 under 35 U.S.C. § 102(b) as being anticipated by Wistendahl. Wistendahl discloses a system for viewing an interactive digital media (IDM) presentation where user selection of “hot spots” in a video display is intended to trigger presentation of additional material to the viewer. Specifically, to facilitate platform independent viewing of the IDM presentations, the cited reference discloses a data layer (“N-data”) that maps those hot spots to a coordinate system of the display device, so as to avoid embedding any platform-dependent codes in the frame data of the IDM presentation itself. The “N-data” layer is transparent to the user, i.e. the user is not aware of it. For example, the IDM presentation may include a “hot spot” comprising an object which, if selected, triggers a hyperlink to additional content, the hyperlink being embedded in program running the IDM presentation. The N-data maps this hot spot to a coordinate system, such that, if a user activates those coordinates, the hyperlink is activated.

An example recited in the cited reference is of viewer watching The Maltese Falcon in an IDM presentation, where an N-data layer maps hot spots that, when selected, trigger pop-up movie trivia about the stars, e.g. Humphrey Bogart, etc.

Independent claims 1 and 21 include the limitations of (1) “providing a descriptive scheme” that is “separate from [the] video [frames]” and that includes “additional information . . . related to . . . at least one of the frames” and (2) “providing said additional information to a viewer” where “said additional information is an object depicted by said picture” and “includes executable computer code.” Wistendahl fails to disclose these latter limitations. The Examiner argues that it is the N-data layer and the IDM program code comprise the “additional information.” The Examiner then contends that Wistendahl’s “additional information” includes “executable computer code” in the form of “hyperlink and trigger information used to launch web sites and/or applications.” The flaw in the Examiner’s rejection, however, is that neither the N-data nor the IDM program code *are* objects depicted by said picture. Though the N-data maps objects in the pictures to a coordinate system, the N-data cannot be said to be the objects themselves that are mapped. Moreover, the IDM program code merely implements instructions that are to be carried out when N-data coordinates are selected.

Therefore, each of independent claims 1 and 21, as well as their respective dependent claims 2-8, 10-12, 15-20, and 22-30, patentably distinguish over the cited prior art, and the Examiner’s rejection of these claims should be overturned.

REJECTION UNDER 35 U.S.C. § 103(a) OVER WISTENDAHL

Dependent claims 13 and 14 respectively depend from independent claim 1 and are patentably distinguished over Wistendahl from the same reasons as is independent claim 1. Therefore, the Examiner’s rejection of claims 13 and 14 should also be overturned.

CONCLUSION

The Examiner's respective rejections of claims 1-8, and 10-30 should be reversed, and the claims should be found patentable.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kurt" followed by a stylized, flowing surname.

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CLAIMS APPENDIX

1. A method of associating additional information with a video including a plurality of frames comprising:
 - (a) identifying at least one of said frames representative of a picture composed of a plurality of pixels;
 - (b) providing a descriptive stream separate from said video;
 - (c) including said additional information in said descriptive stream related to said at least one of said frames;
 - (d) providing said video for displaying on a display;
 - (e) selectively providing said additional information to a viewer approximately the time of said providing said video where said additional information is an object depicted by said picture by said pixels;
 - (f) wherein said additional information includes executable computer program code.
2. The method of claim 1 wherein said additional information includes at least one of an object index, a textual description, a voice annotation, an image feature, an object link, a URL link, and a Java applet.
3. The method of claim 1 wherein said identifying is an object within said frame.
4. The method of claim 1 where said descriptive stream is related to a plurality of said frames.
5. The method of claim 4 wherein said at least one of said frames are in sequential order in said video.
6. The method of claim 4 wherein said at least one of said frames are in nonsequential order in said video.

7. A method of claim 3 wherein said additional information is related to said object.
8. The method of claim 1 wherein said descriptive stream includes an index synchronizing said video with said descriptive stream.
- 9 (Canceled).
10. The method of claim 1 wherein said descriptive stream is encoded separately from said video.
11. The method of claim 10 wherein said video is decoded in the same manner independently of whether said descriptive stream is provided.
12. The method of claim 11 wherein said video is at least one of MPEG-2 and television broadcast format.
13. The method of claim 1 wherein said additional information is presented to said viewer on a remote control.
14. The method of claim 1 wherein an audible signal indicates the availability of said additional information.
15. The method of claim 1 wherein a visual signal indicates the availability of said additional information.
16. The method of claim 7 wherein said additional information includes textual based information related to said object.
17. The method of claim 7 wherein said additional information includes audible information related to said object.

18. The method of claim 7 wherein said additional information includes image features comprising at least one of texture, shape, dominant color, and a motion model related to said object.

19. The method of claim 7 wherein said additional information includes links to at least one of other objects and frames within said video.

20. The method of claim 7 wherein said additional information includes program instructions related to said object.

21. A video system comprising:

- (a) an encoder that includes additional information within a video stream including a video including a plurality of frames representative of a picture composed of a plurality of pixels, where said additional information is related to at least one of said frames;
- (b) a receiver that receives said video and said additional information, and said receiver decodes said video in the same manner independently of whether said additional information is provided;
- (c) a display for displaying said video;
- (d) a trigger mechanism for selectively presenting said additional information to a viewer at approximately the time of presenting said frames to said viewer where said additional information is an object depicted by said picture by said pixels;
- (e) wherein said additional information includes executable computer program code.

22. The system of claim 21, further comprising:

- (a) a transmitter for transmitting said video signal and said additional information; and
- (b) a receiver for receiving said video signal and said additional information.

23. The system of claim 22 wherein said encoder is at least one of a video camera and a computer.

24. The system of claim 21 wherein said trigger mechanism is located in a remote control device.

25. The system of claim 21 wherein said additional information is provided by a remote control device.

26. The method of claim 21 wherein said additional information is related to an object within said frame and includes links to at least one of other objects and frames within said video.

27. The method of claim 21 wherein said additional information is related to an object within said frame and includes program instructions related to said object.

28. The method of claim 21 wherein said additional information is related to an object within said frame and includes textual based information related to said object.

29. The method of claim 21 wherein said additional information is related to an object within said frame and includes audible information related to said object.

30. The method of claim 21 wherein said additional information is related to an object within said frame and includes image features comprising at least one of texture, shape, dominant color, and a motion model related to said object.

31 (Withdrawn). A system for presenting information comprising:

- (a) a single unitary file stored on a recordable media containing both only a single image representative of a picture composed of a plurality of pixels and additional information associated with said image, wherein said image is stored in a first part of said file and said additional information is stored in a second part of said file, said single unitary file does not contain any

other images than said single image, wherein said single unity file is not part of a video sequence;

- (b) a selection mechanism that reads said single image from said single unity file and permits the selection of graphical objects depicted by said picture by said pixels in said image for which said additional information is related thereto; and
- (c) a presentation mechanism that provides said additional information to a viewer in response to selecting said object depicted by said picture by said pixels.

32 (Withdrawn). The system of claim 31 wherein said file includes said image followed by said additional information.

33 (Withdrawn). The system of claim 32 wherein said image and said additional information are separated by a marker indicating the end of said image.

34 (Withdrawn). The system of claim 33 wherein an image viewer which does not recognize said additional information will display said image properly and recognize said marker as indicating the end of said image.

35 (Withdrawn). The system of claim 34 wherein said image is in a JPEG format.

36 (Withdrawn). The system of claim 31 wherein said additional information is organized in at least two layers comprising:

- (a) a first layer containing information describing the location of objects within said image; and
- (b) a second layer containing additional information regarding said objects within said image, where said first layer contains fewer bytes than said second layer.

37 (Withdrawn). The system of claim 36 wherein said second layer follows said first layer, which in turn follows said image file.

38 (Withdrawn). The system of claim 36 wherein said first layer contains a length identifier describing the length of said first layer.

39 (Withdrawn). The system of claim 36 wherein said first layer contains a number of objects identifier describing the number of objects identified by said first layer.

40 (Withdrawn). The system of claim 36 wherein said first layer contains a number of data identifier describing the number of data items associated with a particular said object.

41 (Withdrawn). The system of claim 36 wherein said first layer contains a first definition of the outline of an object of said image.

42 (Withdrawn). The system of claim 36 wherein said second layer contains a length identifier describing the length of said second layer.

43 (Withdrawn). The system of claim 36 wherein said second layer contains an array of offsets that identify the start of each data item.

44 (Withdrawn). The system of claim 41 wherein said second layer contains a second definition of the outline of said object of said image, where said second definition more closely approximates the outline of said object than said first definition.

45 (Withdrawn). The system of claim 41 wherein said second layer contains a second definition of the outline of said object of said image, where said second definition contains more bytes than said first definition.

46 (Withdrawn). The system of claim 36 wherein said second layer includes sound data related to said object.

47 (Withdrawn). The system of claim 36 wherein said second layer includes HTML meta tags related to said object.

48 (Withdrawn). The system of claim 36 wherein said second layer includes textual annotations related to said object.

49 (Withdrawn). The system of claim 36 wherein said second layer includes an HTML page to be rendered.

50 (Withdrawn). The system of claim 36 wherein said second layer includes a Java Applet related to said object.

51 (Withdrawn). The system of claim 36 wherein said second layer includes a color histogram.

52 (Withdrawn). The system of claim 36 wherein said second layer includes data related to the conditions under which said image was created including at least one of lighting, camera settings, and time of acquisition.

53 (Withdrawn). The system of claim 36 wherein said second layer includes data related to information for reproducing said image including at least one of cropping information, paper type, camera settings, and image production settings.

54 (Withdrawn). The system of claim 36 wherein said second layer includes another image to be superimposed upon said image.

55 (Withdrawn). The system of claim 36 wherein said second layer includes data regarding the author of said image.

56 (Withdrawn). The system of claim 36 wherein said second layer includes copyright data regarding the copyright of said image.

57 (Withdrawn). The system of claim 56 said copyright data is encoded.

58 (Withdrawn). The system of claim 36 wherein said second layer includes information regarding how said image should be viewed.

59 (Withdrawn). A method of presenting information comprising:

- (a) displaying an image from a single unitary file stored on a recordable media containing both only a single image representative of a picture composed of a plurality of pixels and additional information associated with said image, where said image is stored in a first part of said file and said additional information is stored in a second part of said file, said single unitary file does not contain any other images than said single image, wherein said single unity file is not part of a video sequence;
- (b) selecting an object depicted by said picture by said pixels in said image for which said additional information is related thereto; and
- (c) providing said additional information to a viewer in response to selecting said object depicted by said picture by said pixels.

60 (Withdrawn). The method of claim 59 wherein said file includes said image followed by said additional information.

61 (Withdrawn). The method of claim 60 wherein said image and said additional information are separated by a marker indicating the end of said image.

62 (Withdrawn). The method of claim 61 wherein an image viewer which does not recognize said additional information will display said image properly and recognize said marker as indicating the end of said image.

63 (Withdrawn). The method of claim 62 wherein said image is in a JPEG format.

64 (Withdrawn). The method of claim 59 wherein said additional information is organized in at least two layers comprising a first layer containing information describing the location of objects within said image and a second layer containing additional information regarding said objects within said image, where said first layer contains fewer bytes than said second layer.

65 (Withdrawn). The method of claim 64 wherein said second layer follows said first layer, which in turn follows said image file.

66 (Withdrawn). The method of claim 64 wherein said first layer contains a length identifier describing the length of said first layer.

67 (Withdrawn). The method of claim 64 wherein said first layer contains a number of objects identifier describing the number of objects identified by said first layer.

68 (Withdrawn). The method of claim 64 wherein said first layer contains a number of data identifier describing the number of data items associated with a particular said object.

69 (Withdrawn). The method of claim 64 wherein said first layer contains a first definition of the outline of an object of said image.

70 (Withdrawn). The method of claim 64 wherein said second layer contains a length identifier describing the length of said second layer.

71 (Withdrawn). The method of claim 64 wherein said second layer contains an array of offsets that identify the start of each data item.

72 (Withdrawn). The method of claim 69 wherein said second layer contains a second definition of the outline of said object of said image, where said second definition more closely approximates the outline of said object than said first definition.

73 (Withdrawn). The method of claim 69 wherein said second layer contains a second definition of the outline of said object of said image, where said second definition contains more bytes than said first definition.

74 (Withdrawn). The method of claim 64 wherein said second layer includes sound data related to said object.

75 (Withdrawn). The method of claim 64 wherein said second layer includes HTML meta tags related to said object.

76 (Withdrawn). The method of claim 64 wherein said second layer includes textual annotations related to said object.

77 (Withdrawn). The method of claim 64 wherein said second layer includes an HTML page to be rendered.

78 (Withdrawn). The method of claim 64 wherein said second layer includes a Java Applet related to said object.

79 (Withdrawn). The method of claim 64 wherein said second layer includes a color histogram.

80 (Withdrawn). The method of claim 64 wherein said second layer includes data related to the conditions under which said image was created including at least one of lighting, camera settings, and time of acquisition.

81 (Withdrawn). The method of claim 64 wherein said second layer includes data related to information for reproducing said image including at least one of cropping information, paper type, camera settings, and image production settings.

82 (Withdrawn). The method of claim 64 wherein said second layer includes another image to be superimposed upon said image.

83 (Withdrawn). The method of claim 64 wherein said second layer includes data regarding the author of said image.

84 (Withdrawn). The method of claim 64 wherein said second layer includes copyright data regarding the copyright of said image.

85 (Withdrawn). The method of claim 64 said copyright data is encoded.

86 (Withdrawn). The method of claim 64 wherein said second layer includes information regarding how said image should be viewed.

87 (Withdrawn). A method for creating an image file comprising:

- (a) providing a single image representative of a picture composed of a plurality of pixels;
- (b) selecting an object depicted by said picture by said pixels in said image;
- (c) providing additional information related to said object; and
- (d) storing both said single image and said additional information in a single unitary file stored on a recordable media, where said file includes only a single image and said image is stored in a first part of said file and said additional information is stored in a second part of said file, said single unitary file does not contain any other images than said single image, wherein said single unity file is not part of a video sequence.

88 (Withdrawn). The method of claim 87 wherein said file includes said image followed by said additional information.

89 (Withdrawn). The method of claim 88 wherein said image and said additional information are separated by a marker indicating the end of said image.

90 (Withdrawn). The method of claim 89 wherein an image viewer which does not recognize said additional information will display said image properly and recognize said marker as indicating the end of said image.

91 (Withdrawn). The method of claim 90 wherein said image is in a JPEG format.

92 (Withdrawn). The method of claim 87 wherein said additional information is organized in at least two layers comprising a first layer containing information describing the location of objects within said image and a second layer containing additional information regarding said objects within said image, where said first layer contains fewer bytes than said second layer.

93 (Withdrawn). The method of claim 92 wherein said second layer follows said first layer, which in turn follows said image file.

94 (Withdrawn). The method of claim 92 wherein said first layer contains a length identifier describing the length of said first layer.

95 (Withdrawn). The method of claim 92 wherein said first layer contains a number of objects identifier describing the number of objects identified by said first layer.

96 (Withdrawn). The method of claim 92 wherein said first layer contains a number of data identifier describing the number of data items associated with a particular said object.

97 (Withdrawn). The method of claim 92 wherein said first layer contains a first definition of the outline of an object of said image.

98 (Withdrawn). The method of claim 92 wherein said second layer contains a length identifier describing the length of said second layer.

99 (Withdrawn). The method of claim 92 wherein said second layer contains an array of offsets that identify the start of each data item.

100 (Withdrawn). The method of claim 97 wherein said second layer contains a second definition of the outline of said object of said image, where said second definition more closely approximates the outline of said object than said first definition.

101 (Withdrawn). The method of claim 97 wherein said second layer contains a second definition of the outline of said object of said image, where said second definition contains more bytes than said first definition.

102 (Withdrawn). The method of claim 92 wherein said second layer includes sound data related to said object.

103 (Withdrawn). The method of claim 92 wherein said second layer includes HTML meta tags related to said object.

104 (Withdrawn). The method of claim 92 wherein said second layer includes textual annotations related to said object.

105 (Withdrawn). The method of claim 92 wherein said second layer includes an HTML page to be rendered.

106 (Withdrawn). The method of claim 92 wherein said second layer includes a Java Applet related to said object.

107 (Withdrawn). The method of claim 92 wherein said second layer includes a color histogram.

108 (Withdrawn). The method of claim 92 wherein said second layer includes data related to the conditions under which said image was created including at least one of lighting, camera settings, and time of acquisition.

109 (Withdrawn). The method of claim 92 wherein said second layer includes data related to information for reproducing said image including at least one of cropping information, paper type, camera settings, and image production settings.

110 (Withdrawn). The method of claim 92 wherein said second layer includes another image to be superimposed upon said image.

111 (Withdrawn). The method of claim 92 wherein said second layer includes data regarding the author of said image.

112 (Withdrawn). The method of claim 92 wherein said second layer includes copyright data regarding the copyright of said image.

113 (Withdrawn). The method of claim 92 said copyright data is encoded.

114 (Withdrawn). The method of claim 92 wherein said second layer includes information regarding how said image should be viewed.

115 (Withdrawn). The method of claim 92 wherein said first layer is transmitted from a first computer to a second computer together with said image.

116 (Withdrawn). The method of claim 115 wherein portions of said second layer are transmitted from said first computer to said second computer upon request by said first computer.

117 (Withdrawn). The method of claim 116 wherein said request is in response to a user selecting an object within said image.

EVIDENCE APPENDIX:

None.

RELATED PROCEEDINGS APPENDIX:

None.